

1. SOW & Deliverables

1.1 SOW

This CWO has two major components, each with sub-components.

- 1 Provide software implementation support for following assemblies and deliveries in support of the Advanced Communications Services (ACS) Task and as reviewed at the ACS Preliminary Design Review (PDR):

GCS Monitor and control Processor (GMP): “GMP Integration Delivery #1”, “GMP-I Integration Delivery #2” & “GMP NCP Automation Delivery”

Central Data Recorder (CDR): “CDR RNSOps & External I/F Delivery” & “CDR GMP/NMC Integration Delivery”

For each delivery, this will involve implementation and delivery of the software and associated test materials and documentation, including:

- Refining requirements to reduce ambiguity & misinterpretation.
 - Developing design(s) through either formal mechanisms or through prototyping.
 - Implementing deliverable software.
 - Supporting software delivery to SPMC and thence to operations.
 - Helping to develop test plans and test approaches and supporting the testing efforts.
 - Providing documentation of software requirements, software operating procedures, software design, & software test plans, procedures, and results.
 - Supporting user training as necessary.
 - Participating in inspections, peer reviews, technical reviews, and management reviews as necessary.
 - Participating in schedule development and weekly reporting of schedule progress and updates
- 2 Support the operational versions of the GCS Monitor and control Processor (GMP) and Central Data Recorder (CDR) by:
 - Responding to reported problems and delivering corrections.
 - Providing testing and test support.

1.2 Deliverables

- 1 Software which meets the high level requirements and design as provided by JPL, and the assembly requirements and design as developed jointly by the JPL CDE and the ISDS personnel.
- 2 Documentation inputs or complete documents as negotiated between the ISDS team and the JPL ACS team for the documents listed below. These documents will be developed to meet the intent of the JPL D-4000 specification.
 - a. Requirements and functional specifications (SRD)

- b. Software Operators Manual (SOM)
 - c. System and Software Design (SDD)
 - d. Test Plans and test scenarios (STP)
 - e. Release Descriptions (RDD, capabilities memos)
 - f. Interface Agreements
 - g. Memos and task correspondence as needed
- 2 Testing of all developed software at various stages, including:
- a. Module and function level debug
 - b. Assembly level engineering testing
 - c. Assembly level pre-acceptance testing
 - d. Assembly level acceptance testing
 - e. Combined subsystem level integration testing
- 3 Training Materials (e.g., slides, handouts) as necessary.

1.3 Deliveries and Schedules

This CWO covers the following four deliveries which are a subset of the deliveries of the ACS task:

GMP Integration Delivery #1	(enters soak testing ~4/1/97)
GMP Integration Delivery #2	(enters soak testing ~4/1/98)
GMP NCP Automation Delivery	(enters soak testing ~10/1/98)
CDR RNS, Ops & External I/F Delivery	(enters soak testing ~4/1/97)
CDR GMP/NMC Integration Delivery	(enters soak testing ~4/1/98)

1.4 Estimated Effort & Staffing

The estimated effort involves the equivalent of one and one-half full-time ISDS software engineers for the duration of the above deliveries. The software engineers will work with three full-time JPL employees in accomplishing the work required for the deliveries identified above.

Key ISDS staff members are: Erik Barkley (0.5) & Stanley Mak

1.5 JPL Account Number

Charges to this CWO are to be allocated to the following JPL account number(s) beginning with JPL fiscal year 1997:

tbs-xxxxxx-0-3940 (100%)